

the style," which made it a little worse. I know the word stamen and the word style, but I don't know what either of them mean.

Q. What do you mean by stamen, or styles?

A. Well, there is two little round—I really don't know—there is two little round—it is like a round cord that comes out of the seed pod, and that come out of the flower, or the bud, rather, refused to open.

THE COURT: What is the calyx?

THE WITNESS: The calyx is the part that holds the leaves together.

THE COURT: And this stamen came out?

THE WITNESS: Yes.

THE COURT: The stamen is the thing that blossoms and makes the flower?

THE WITNESS: No, the stamen is into the seed pod, and that came out, and of course, that was as far as it could go.

REVIEWS

Coulter's Plant Life and Plant Uses*

Coulter's *Plant Life and Plant Uses* seems to the reviewer unfortunate in implying in title and in the subtitle that it is in any peculiar way "a foundation for agriculture, domestic science, and college botany." If a proportionate discussion of such subjects as weeds, yeasts and bacteria, and economic uses and relationships of plants would "seriously impair the unity of organization which should characterize a foundational text" the misleading subtitle should be changed.

The combination of conversational style and a large number of technical terms seems unfortunate also. There have appeared recently several high school text books which are as broad in scope, and which present more satisfactorily the several styles or treatments which the author has endeavored to combine in this book. Atkinson's *Botany for Schools*, as a type of the strictly academic, is far superior. The chapter-end questions are much better done by Andrews in the *Practical Course in Botany*; the questions in that are really thought-producing, while Dr. Coulter

* John Gaylord Coulter. *Plant Life and Plant Uses*. Pp. v-xvi + 1-464. f. 1-230. American Book Company, New York, 1913. Price, \$1.20.

limits too many of his to "define," "describe," or the very indefinite "discuss." Most high school teachers need some indication of the kind and amount of laboratory work expected by the author; that has been one great advantage of the Bergen text books. The last, Bergen and Caldwell's Practical Botany, is surely just as readable and interesting as this, although it retains the text-book style. Among the books which have a better *foundation* for the title-page claims Bigelow's Applied Biology might be mentioned; their later Introduction to Biology has a most original arrangement of the recognized high school matter, and which is, nevertheless, logical. Dr. Coulter it would seem is unfortunate in the arrangement of subject matter, *e. g.*, discussing photosynthesis on page 43, just forty-six pages before he defines solutions, molecules, and compounds.

The illustrations are often insufficiently labeled (as in those of the root and stem, pp. 80-83, or in the flower diagrams on 291).

While Dr. Coulter, no doubt, makes botany a live subject in his own teaching, he has not, unfortunately, put into his book the many things the many unprepared teachers need to help them do their work.

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Rock's The Indigenous Trees of the Hawaiian Islands*

This handsome work, published by the aid of thirty-three liberal patrons of botany, is a most useful and valuable presentation of the arborescent plants of the Hawaiian Islands. Technical descriptions of all species observed by the writer as trees, even if usually occurring as shrubs, are given, together with the native name, notes on uses of woods, fibers, leaves, fruits, oils and other products, and the distribution of the species within the islands and elsewhere. The illustrations are all photographs, either of isolated trees or of twigs showing flowers or fruit, sometimes both.

The descriptive portion of the work is prefaced by detailed accounts of the six botanical regions, (1) strand vegetation; (2)

* Large octavo, 516 pages with 215 plates, Honolulu, published June 26, 1913. By Joseph F. Rock.